

## CLAIMS

1. A packet communication apparatus comprising:
  - a monitoring section that monitors a channel condition of a radio channel;
  - a determination section that determines a transmission window size of a packet transmission source according to the channel condition monitored; and
  - a transmission section that transmits the determined transmission window size to the packet transmission source.
2. The packet communication apparatus according to claim 1, wherein the monitoring section comprises:
  - a reception section that receives a packet transmitted from the packet transmission source through the radio channel; and
  - a measurement section measuring reception quality of the received packet.
3. The packet communication apparatus according to claim 1, wherein the monitoring section comprises an ACK generation section that generates an ACK/NACK in response to data transmitted from a radio communication party, and determines the channel condition of the radio channel referring to an ACK/NACK generation history.

4. The packet communication apparatus according to  
claim 1, wherein the determination section increases the  
transmission window size when the channel condition is  
good and decreases the transmission window size when the  
5 channel condition is poor.

5. The packet communication apparatus according to  
claim 1, wherein the determination section has a table  
showing transmission window sizes at the packet  
10 transmission source corresponding in association with  
channel conditions determines the transmission window  
size according to the table.

6. The packet communication apparatus according to  
15 claim 1, wherein the determination section determines  
the transmission window size corresponding to the number  
of packets that can be transmitted on the radio channel  
within a period in which the packet transmission source  
requests a transmission of a reception status report  
20 packet.

7. The packet communication apparatus according to  
claim 1, wherein the transmission section sets the  
determined transmission window size in a predetermined  
25 field of the reception status report packet and transmits  
the determined transmission window size.

8. The packet communication apparatus according to claim 7, wherein the transmission section transmits the reception status report packet in accordance with a request from the packet transmission source.

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9. A mobile station apparatus comprising the packet communication apparatus according to claim 1.

10. A base station apparatus comprising the packet communication apparatus according to claim 1.

11. A packet communication method comprising steps of:  
monitoring a channel condition of a radio channel;  
determining a transmission window size of an packet  
transmission source according to the channel condition  
monitored; and  
transmitting the determined transmission window size  
to the packet transmission source.